ADVANCING DESIGN

IN HORIZONTAL MOTION CONVEYING SYSTEMS

TRIPLE/S DYNAMICS, INC.

ADVANCING.

ABOUT THE SLIPSTICK®.

The most productive advancement in horizontal conveying equipment in decades, the Slipstick® horizontal motion conveyor is recognized for its gentle, non-impact conveying motion and high reliability performance.

Featuring a slow-forward, quick-return conveying motion, The Slipstick is unrivaled in maintaining product quality in a variety of applications. Unlike conventional vibrating conveyors, the Slipstick won't compromise product quality whether it's utilized in food processing plants or bulk product manufacturing.

The Slipstick can also operate at multiple speeds and in reverse, while many vibrating conveyors are confined to one-speed and one-direction. The Slipstick conveyor is ideal for food products, pharmaceuticals, heavy loads, fragile products, abrasive products, powders and other bulk products.

HOW TO USE THIS GUIDE

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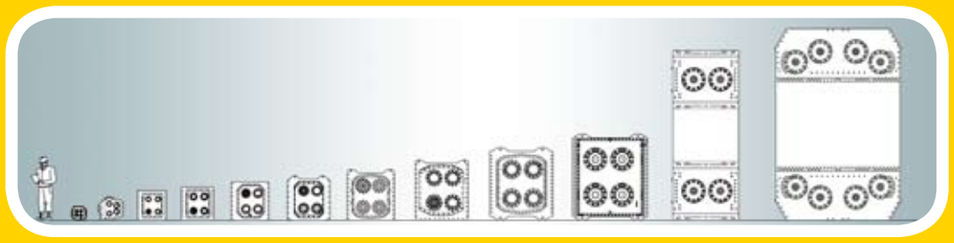
Drive Systems

Powering the Slipstick



The Slipstick drive units are available in a wide range of sizes. Drive selection is made to match the inertia force of the drive to the entire weight of the conveyor to yield the +/- ½" stroke. The total range of weights (net of the drive itself) spans 191 lbs to 224,600 lbs.

For optimal balance it is recommended that the drive unit be positioned at either end of the conveyor. The drive can be timed to convey in both directions, and it can be set for bi-directional operation. If sufficient support can be provided to the conveyor for sustaining the added reaction couple that results from displacement of the drive from the center of gravity of the conveyor, then the drive may be placed below the trough, or in some cases above it.

For installations where conveyors are aligned end-to-end, as found in some product distribution applications, the drive units may be positioned below the conveyor trough.

For optimal balance, drives may be positioned at either end of the conveyor. Drives can be timed to the conveyor in either direction, or set up for bi-directional conveying.

ADAPTER

The drive adapter is a heavier weldment designed to carry the acceleration of the drive unit to the inertial load of the trough. The design of the adapter is unique for each conveyor arrangement.

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Slipstick Conveyor Trough

The conveyor trough is usually provided as formed steel and can be provided in almost any cross sections that can be formed.

The majority of the designs are of a rectangular cross section. A number of standards have been adopted to reduce the design time required as well as to reduce the amount of other parts associated with the manufacture of troughs.

For light duty conveyors a standard depth is eight inches and widths are kept at intervals of six inches.

Travel Rates

With the travel rate of most dry, free-flowing materials falling in the 25-30 feet/ minute range, the bed depth can be calculated for the product flow for any width. Triple/S Dynamics offers a flow calculator specifically for this application.

The maximum recommended depth is highly dependent on the product characteristics. Materials with a low angle of repose will not convey evenly in deep beds. Materials that mechanically interlock may be conveyed at much deeper beds levels (up to eight feet).

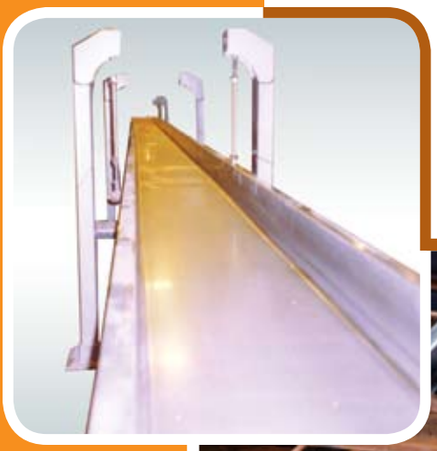
For difficult materials a conveying test can be arranged for demonstration and verification of anticipated material travel rates.

However a common standard depth is between three and five inches for most dry, free-flowing materials, in a trough depth of eight inches.

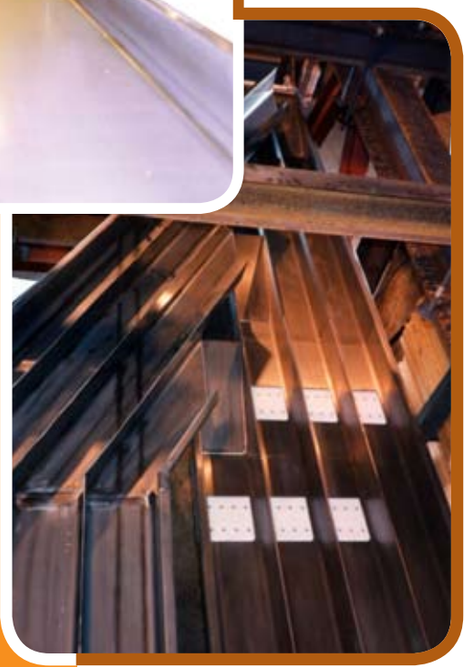
Construction Materials

The trough is most commonly provided in steel, either stainless for sanitary conveyors, or mild steel. Some applications call for the use of alternate materials of construction, or for product contact, such as titanium, polyethylene plastic, refractory ceramics, rubber, aluminum, and other materials. Conveyor troughs may be supplied as single or multiple channels.

The Sliptsick conveyor trough may be equipped with a variety of discharge gates, pneumatically actuated product retainers, screens, and other devices.



Conveyor lengths to 250 feet are possible.



Conveyor troughs can be provided with multiple channels for handling different products in a single conveyor.

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Trough Covers

The trough may be open-topped, or enclosed with covers. Integral covers may be clamped, hinged and clamped, bolted, or welded in place. Access ports and viewports may be specified. Stationary covers may also be employed with external supports.

Sanitary, dust-tight inlets and access ports are available. Sanitary integral pan covers are a common feature for providing cleanliness of operation and food safety.

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Tube Conveyor

For applications where access to the interior of the trough is to be restricted, the trough may be specified as a sealed tube section. Round sections have been provided as well as rectangular sections.

A rectangular section is a more space-effective design than a round section as the volume of conveyed material in a round section is much less than a rectangular cross section for a given bed depth.

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The X-Force™ Model

Providing gentle, linear conveying of even the most fragile food products and powders, the X-Force™ Horizontal Motion Conveyor is capable of transferring material up to 200 feet with a single drive. Like the Slipstick, the X-Force employs a slow advance, quick-return conveying action which makes it ideal for flakes, blended materials, and coated products. In addition, it reduces material damage, coating loss, segregation, and stratification. Build-up of oily fines or sticky materials is also greatly reduced. Choose from three different models: open trough, tubular, and closed trough.

All X-Force models feature full-length hinged covers and are equipped with smooth, sanitary surfaces and large radius corners for ease of cleaning. Troughs with multiple lanes are available to simultaneously transfer more than one product. These troughs can be aluminum, stainless steel, or application-specific polymer or composite materials. For optimal control, X-Force product flow rates are infinitely adjustable with a VFD.

In 2002, we added the X-Force Conveyor design to the product line-up. The X-Force drive performs the same as a Slipstick; the chief difference is that the X-Force drive is equipped with a belt for coupling the shafts rather than gears (except on the smaller #4 and #6 which are belt coupled).

The X-Force™ Linkage

X-Force® linkage employs a smooth horizontal motion, minimizing vertical dynamic forces as the conveyor oscillates.

This patented X-Force linkage was developed by the former Food Engineering Corporation's engineers as a three link assembly designed to most closely approximate a strictly horizontal motion through the movement of three rubber bushed links.

Triple/S Dynamics has adopted this design for use with the Slipstick conveyor in pedestal (floor) mounted applications in addition to use with the X-Force conveyors.

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Support and Suspension

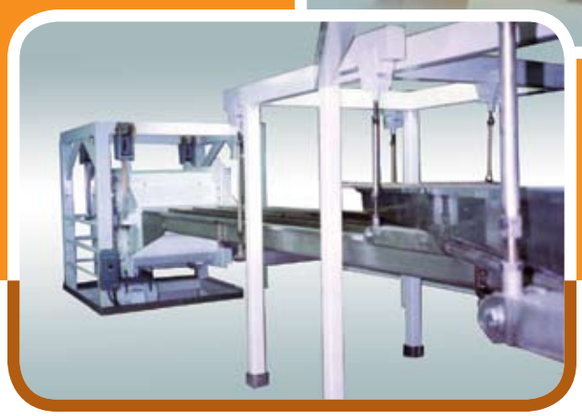
The Slipstick Conveyor is provided with two types of suspension. For overhead suspension from support steel or plant ceiling rubber bushed rods are used to allow the conveyor to swing like a pendulum as it oscillates with a +/- ½ inch amplitude. Where there is no useful overhead surface from which to suspend the conveyor, support structures can be provided for tower floor support.

Tower Floor Support

Overhead Suspension

For supporting the conveyor from a floor or mezzanine, a three-link rocker assembly may be used to allow straight-line motion of the conveyor.

Support structures may be supplied to provide support for the conveyor, personnel access and support for other elevated equipment.



Support structures such as access platforms and walkways may be included to tie together multiple conveyors or to support other equipment.

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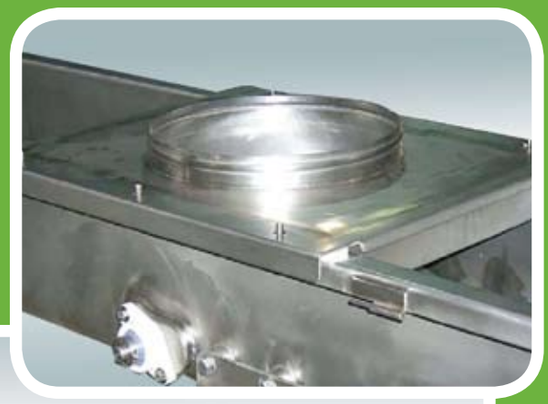
Inlets/Outlets

Inlets and outlets may be installed anywhere along the length of the trough. They may be open or sealed with flexible boots. Dust pick-ups may be installed for extraction of any airborne dust created at material transfer points (the horizontal motion of the Slipstick itself does not create dusting).



The Conical Discharge is used for the even distribution of product onto a multiple head weigh scale.

Sealed inlets and outlets may be used for dusty products.

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Gate Options

Click on the gate type for more detailed information.

Easy Clean

Total access for thorough cleaning

Pinch Free

Ideal for product transfers

Pivot

Seals against dust leakage

Plug

Provides maximum sanitation

Rail

Resists abrasive wear

Accessories

A variety of accessories for most any application

The Bypass Protection Chute is used to provide an extra measure of guarding against the possibility of product cross-contamination for conveyor systems equipped with gates.

The Rail Gate is well suited for environments prone to abrasive dust and particles.

The Easy Clean Slide Gate is designed for ready access to all the contact surfaces eliminating the need for any special tools.

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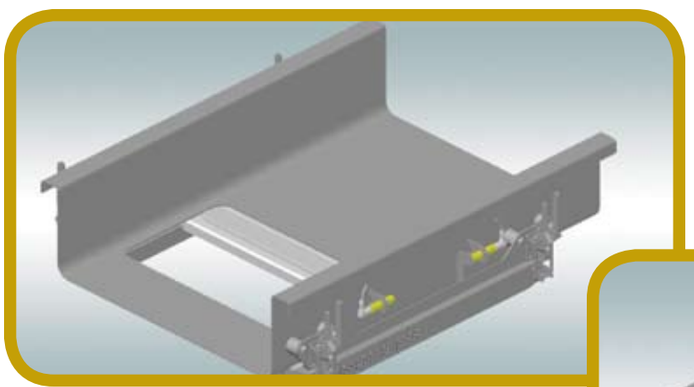
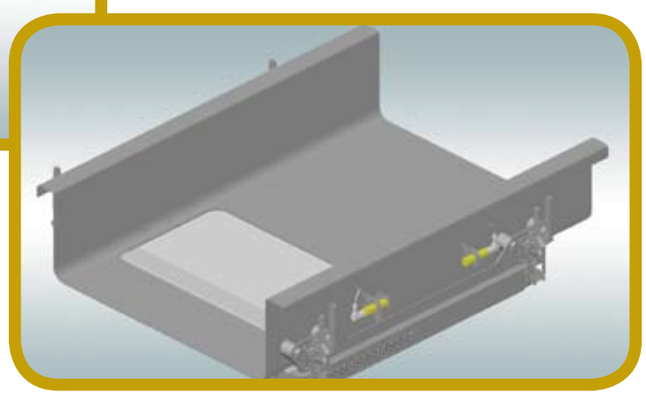
Easy Clean Slide Gate

The Easy Clean Slide Gate is used for product transfers in an open, sanitary environment where thorough cleaning of the working components of the gate are required. With the release of four clamps the gate plate and retaining rails may be rotated away from the conveyor pan for complete access.





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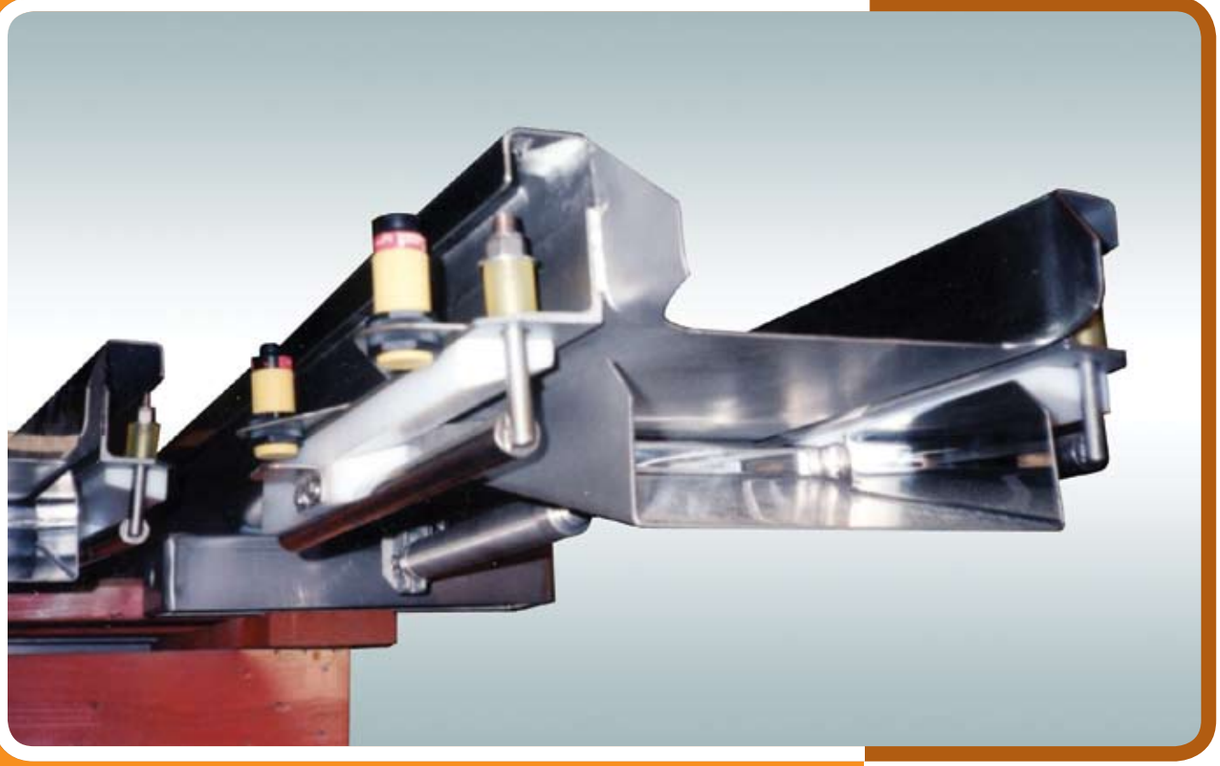
Pinch Free Gate

The Pinch Free Gate is installed at the end of a conveyor pan and does not close against a contacting edge or surface. This gate is used in product transfers to another conveyor, as in a modular distribution system, or to another piece of equipment. It is also used in applications where product damage due to gate closure is a potential issue.



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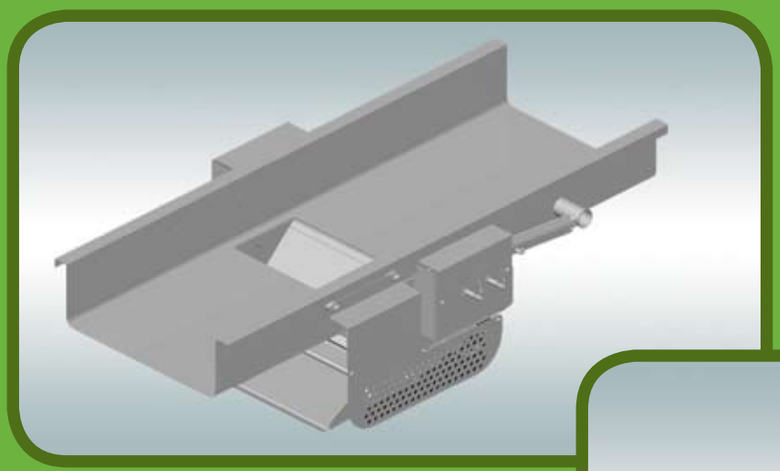
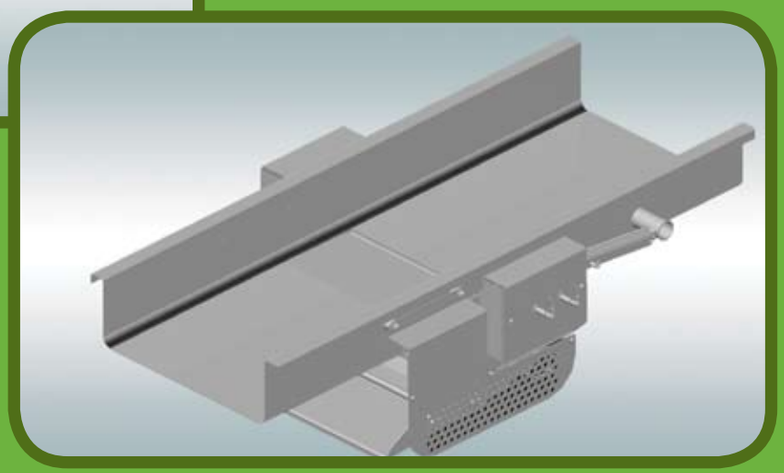
Pivot Gate

The Pivot Gate is equipped with rubber spring loaded UHMW seals that bear against a thick stainless steel gate plate. As the gate is closing, the contact between the plate and the seals is shear which wipes contacting surfaces of any adhered dust. The Pivot Gate is recommended where sealing against dust and fines leakage is important.





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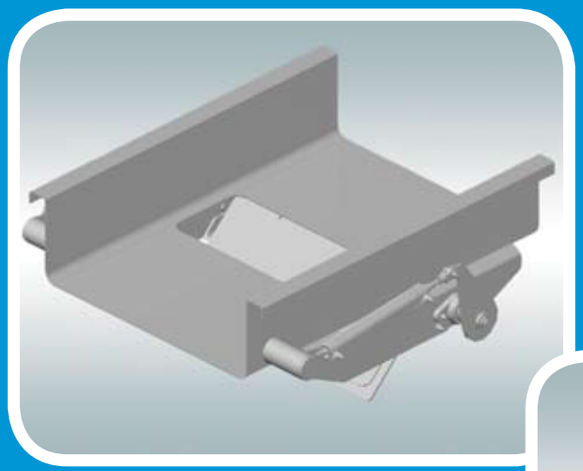
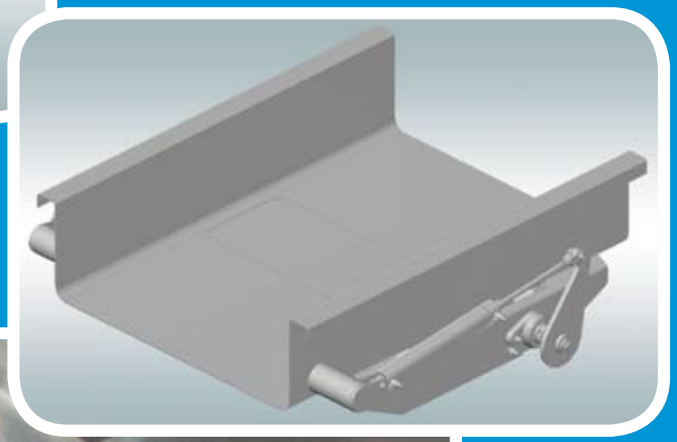
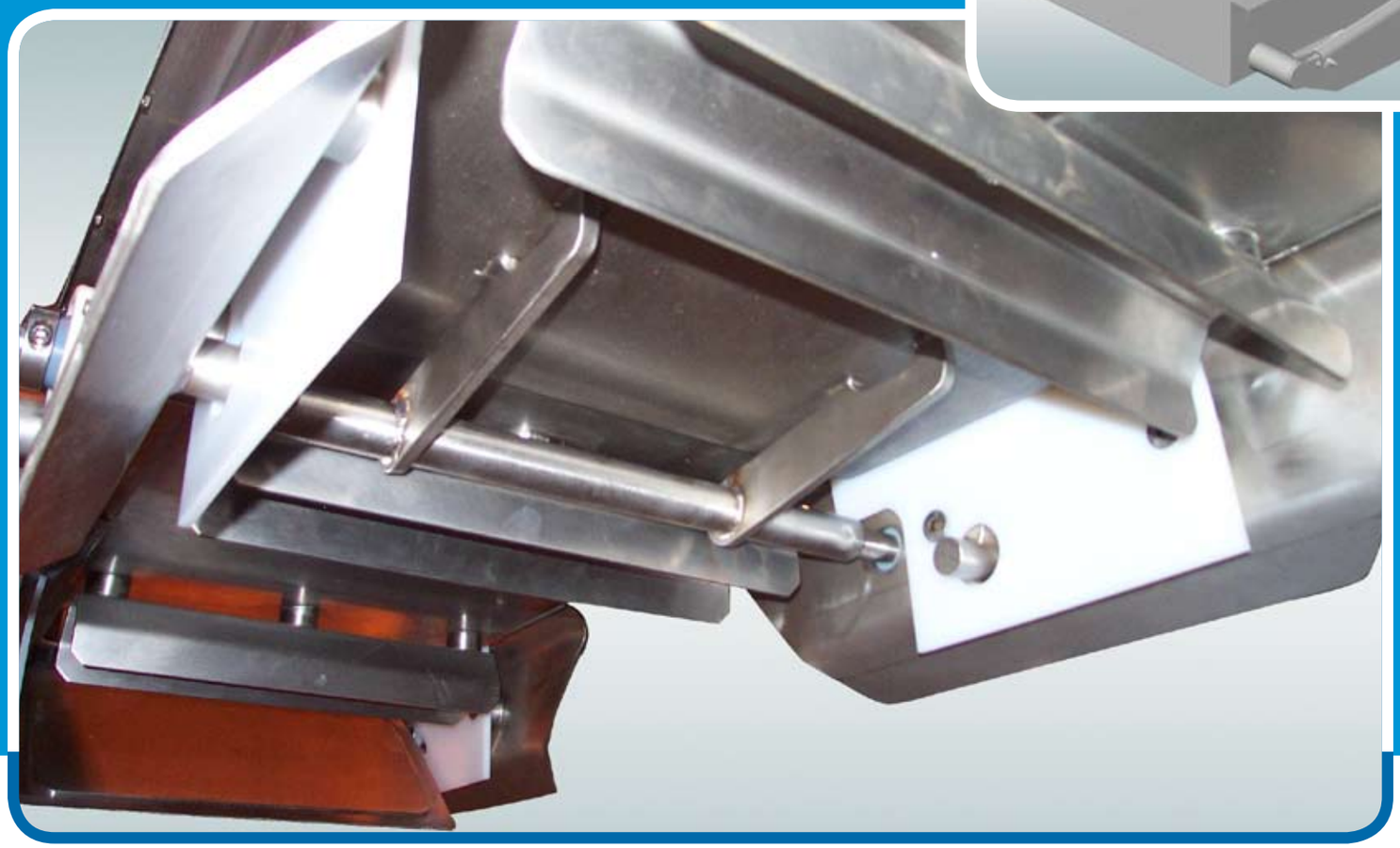
Plug Gate

The Plug Gate is used where maximum sanitation is required. The working components are all stainless steel, and there are no seals. This gate meets USDA and 3A standards for sanitary design.







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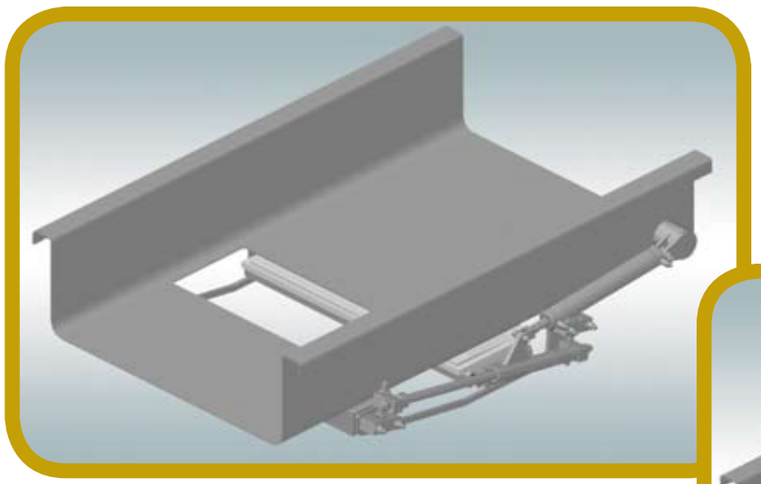
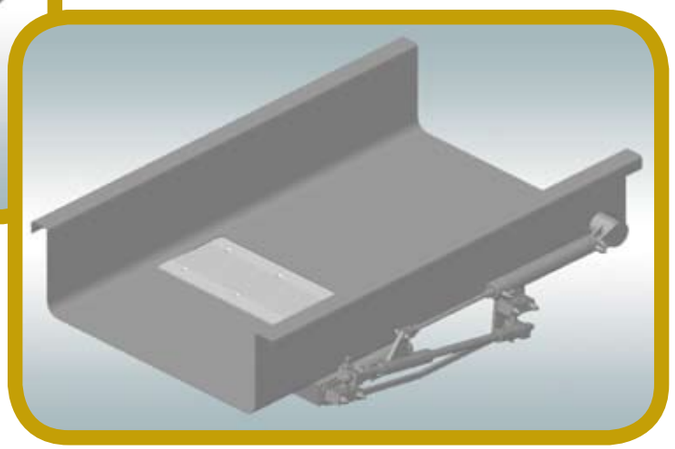
Rail Gate

The Rail Gate is used where a conveyor gate is to be used in a dusty environment where abrasive wear is a concern. The gate is equipped with a solid bearing element that traverses a pair of polished stainless steel rails that may be sealed with a bellows.





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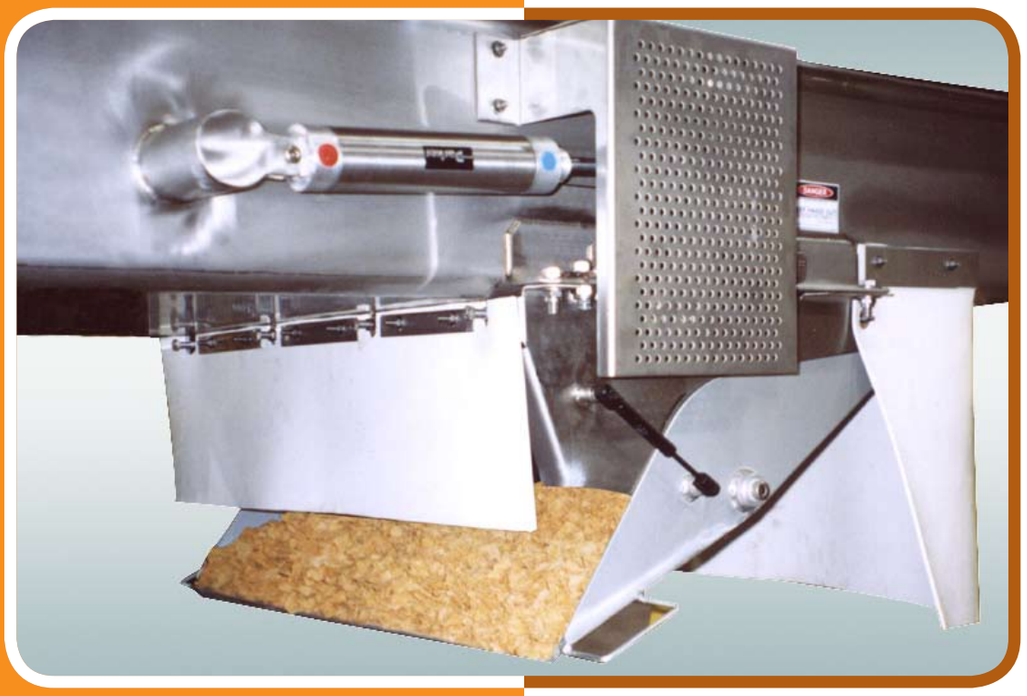
Gate Accessories

The **Bypass Protection Chute** is used under gates where improved protection against the possibility of a cross-contamination from a gate fault must be minimized. It is simply a **two-way diverter** that may be pneumatically or manually actuated.

The **Flow Arrestor** is often used to **temporarily stop product flow** when a gate immediately downstream is closed. This prevents product from being damaged in the gate closure. The Flow Arrestor may also be used to **build surge capacity** in the Slipstick Conveyor. For fragile products the Flow Arrestor offers a stationary mounting which is more gentle with the product.

Remotely actuated gates on Slipstick Conveyors are **pneumatically powered**. Most gates are fit with a proprietary pneumatic cylinder that includes a stainless steel body and aluminum end fittings. All-stainless cylinders are also available.



The cylinders are equipped with **flow control valves** on each port for speed control of the gate actuation. Pneumatic tubing is not usually supplied as the pneumatic lines are run after the conveyor is installed.

Gates may also be specified with proximity **sensors for position sensing**. This may be a pair of simple reed switches mounted to the cylinder body to detect the position of a magnetized piston, or **Hall Effect proximity sensors** may be installed to detect the position of a gate component.

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Screens

The gentle, horizontal motion of the Slipstick does not make this conveyor especially suitable for screening fine material out of a product stream. The Slipstick motion does not stratify a product bed by particle size so fines do not readily sift to the bottom of the material bed to come in contact with the screen surface.

However, with a bar screen the conveyor can be used to scalp oversize material in some applications.

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Industry Applications

Food Handling

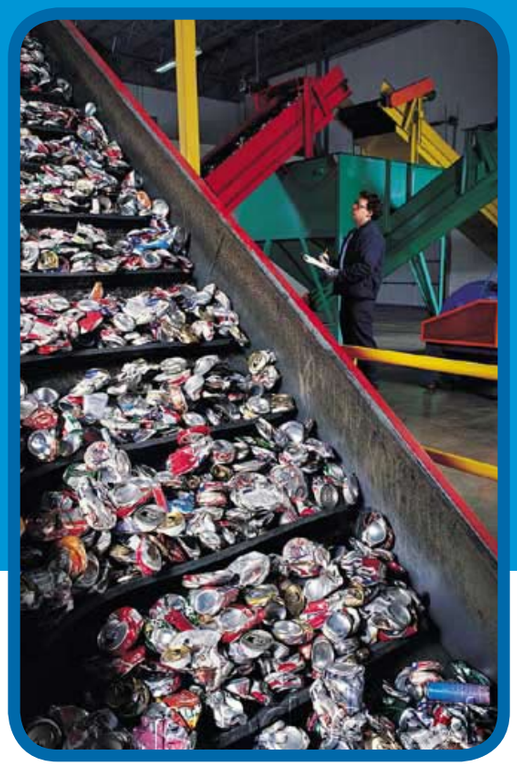
Triple/S Dynamics offers the highest performing conveying and distribution systems in the food industry. No matter which system or solution is right for your particular requirements, you can count on Triple/S to provide a gentle conveying motion that helps eliminate product damage. Discourages build-up of materials on the conveying surface. And significantly improves sanitation. With thousands of Triple/S conveyors at work in North America, Europe, and the Far East, it's clear that Triple/S has set the new standard of product quality and sanitation.

Dry Bulk

Wealth of knowledge and full range of equipment combines to make our solutions ideal for applications where products are dusty, friable, hazardous, sticky, abrasive, or in instances where products require special sanitation provisions. Ultimately, our primary objective is to offer the best balance of product yield, product purity, capital cost, and simplicity of operation to match the needs of most any application. And to meet the requirements of even the most discerning customer.

Recycling

Triple/S Dynamics offers one of the broadest ranges of recycling and waste handling systems and equipment in the industry. With a goal of building equipment for consistent reliability and low maintenance, we engineer and manufacture durable, high-performance chopping and granulating equipment, separation equipment, and for material movement, ultra-efficient conveyors.
For applications demanding a specialized solution, Triple/S can custom engineer a turnkey, integrated system designed to fit your specific needs.



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ABOUT TRIPLE/S DYNAMICS

With installations around the world, Triple/S Dynamics is recognized as one of the leading conveyor manufacturers of horizontal motion conveyor systems and screening and separation equipment for a variety of processing industries.

Throughout more than 100 years of service, Triple/S has accumulated a depth and breadth of experience that has led to the most rugged, safe, sanitary, and reliable horizontal motion conveyor systems in the industry. We take pride in tailoring solutions to meet the specific needs of each customer, providing the best, most precise match of equipment to application. Industries we serve include mining, food processing, recycling, bulk handling, agriculture, chemical processing, and foundry.

With a rich history of innovation, Triple/S Dynamics remains a pioneer in advancing the entire processing industry. Our decades of experience, wealth of industry-specific knowledge, and focus on the total solution rather than just the equipment, means we can offer the most comprehensive, flexible, and cost efficient recycling or waste handling system to match your application.

The three "S's" of Triple/S Dynamics represent the names of brothers Edwin and Walter Steele and Henry Sutton who founded the company in 1888.

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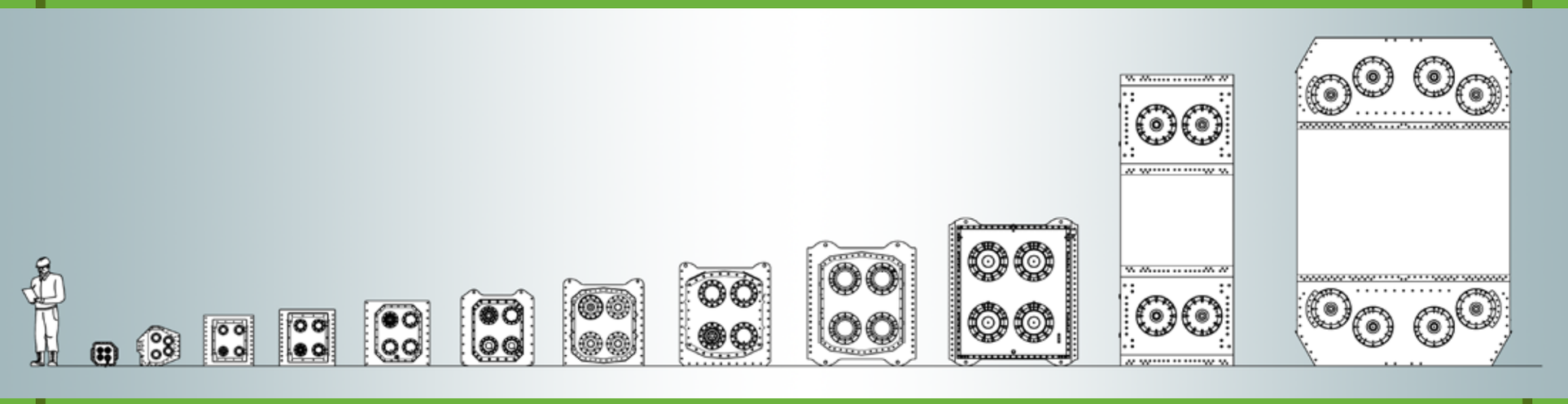
Drive Units are available in a range of weights.

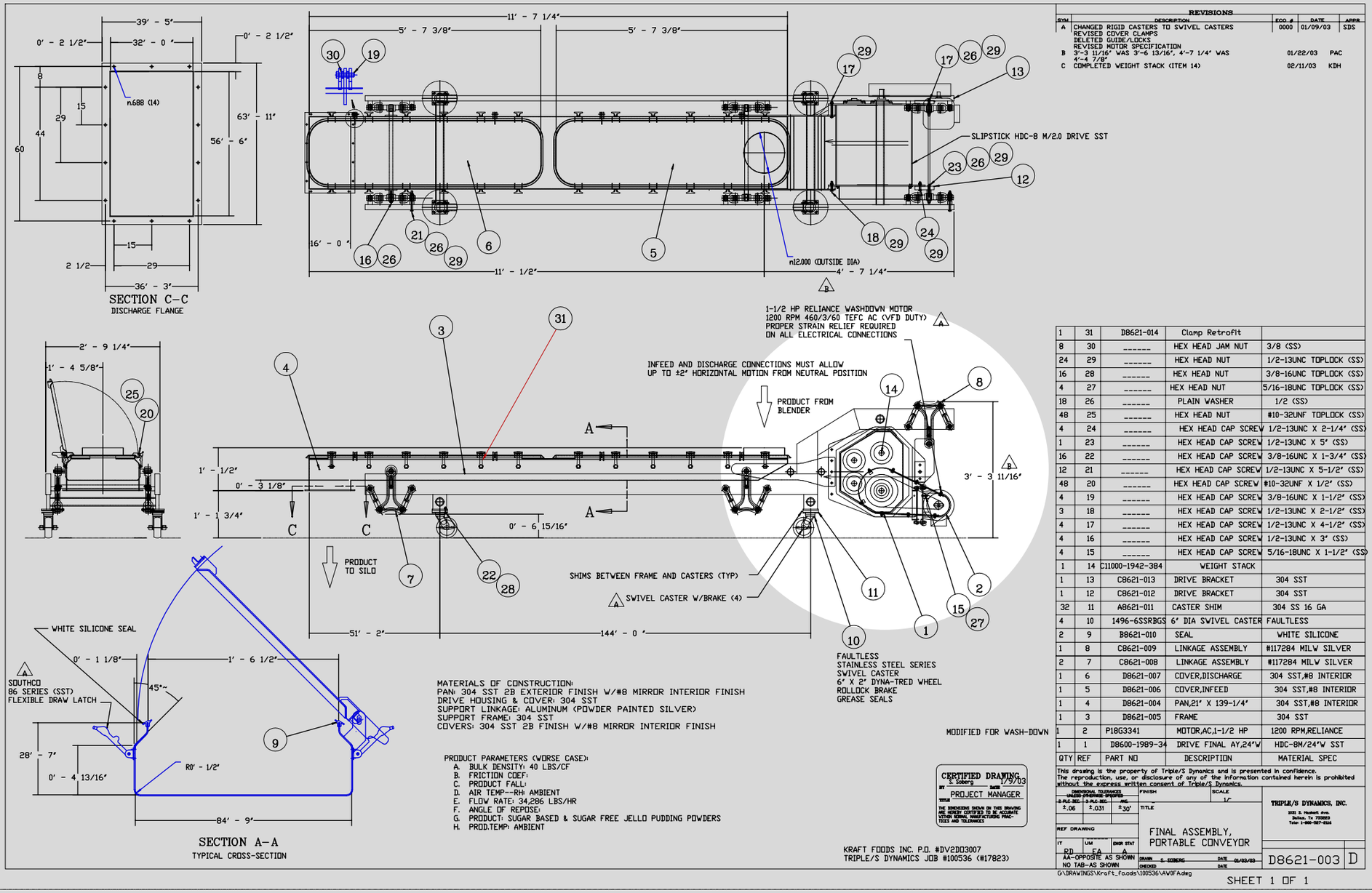
191lbs. to 224,600 lbs.



191 lbs. **224,600 lbs.**

BACK

END PLACEMENT



REVISIONS				
SYM	DESCRIPTION	ECO #	DATE	APPR
A	CHANGED RIGID CASTERS TO SWIVEL CASTERS REVISED COVER CLAMPS DELETED GUIDE/LOCKS REVISED MOTOR SPECIFICATION	0000	01/09/03	SDS
B	3'-3 11/16" WAS 3'-6 13/16", 4'-7 1/4" WAS 4'-4 7/8"		01/22/03	PAC
C	COMPLETED WEIGHT STACK (ITEM 14)		02/11/03	KDH

QTY	REF	PART NO	DESCRIPTION	MATERIAL SPEC
1	31	D8621-014	Clamp Retrofit	
8	30	------	HEX HEAD JAM NUT	3/8 (SS)
24	29	------	HEX HEAD NUT	1/2-13UNC TOPLOCK (SS)
16	28	------	HEX HEAD NUT	3/8-16UNC TOPLOCK (SS)
4	27	------	HEX HEAD NUT	5/16-18UNC TOPLOCK (SS)
18	26	------	PLAIN WASHER	1/2 (SS)
48	25	------	HEX HEAD NUT	#10-32UNF TOPLOCK (SS)
4	24	------	HEX HEAD CAP SCREW	1/2-13UNC X 2-1/4" (SS)
1	23	------	HEX HEAD CAP SCREW	1/2-13UNC X 5" (SS)
16	22	------	HEX HEAD CAP SCREW	3/8-16UNC X 1-3/4" (SS)
12	21	------	HEX HEAD CAP SCREW	1/2-13UNC X 5-1/2" (SS)
48	20	------	HEX HEAD CAP SCREW	#10-32UNF X 1/2" (SS)
4	19	------	HEX HEAD CAP SCREW	3/8-16UNC X 1-1/2" (SS)
3	18	------	HEX HEAD CAP SCREW	1/2-13UNC X 2-1/2" (SS)
4	17	------	HEX HEAD CAP SCREW	1/2-13UNC X 4-1/2" (SS)
4	16	------	HEX HEAD CAP SCREW	1/2-13UNC X 3" (SS)
4	15	------	HEX HEAD CAP SCREW	5/16-18UNC X 1-1/2" (SS)
1	14	C11000-1942-384	WEIGHT STACK	
1	13	C8621-013	DRIVE BRACKET	304 SST
1	12	C8621-012	DRIVE BRACKET	304 SST
32	11	A8621-011	CASTER SHIM	304 SS 16 GA
4	10	1496-6SSRBGS	6" DIA SWIVEL CASTER	FAULTLESS
2	9	B8621-010	SEAL	WHITE SILICONE
1	8	C8621-009	LINKAGE ASSEMBLY	#117284 MILW SILVER
2	7	C8621-008	LINKAGE ASSEMBLY	#117284 MILW SILVER
1	6	D8621-007	COVER,DISCHARGE	304 SST,#8 INTERIOR
1	5	D8621-006	COVER,INFEED	304 SST,#8 INTERIOR
1	4	D8621-004	PAN,21" X 139-1/4"	304 SST,#8 INTERIOR
1	3	D8621-005	FRAME	304 SST
1	2	P18G3341	MOTOR,AC,1-1/2 HP	1200 RPM,RELIANCE
1	1	D8600-1989-34	DRIVE FINAL AY,24"W	HDC-8M/24"W SST

MATERIALS OF CONSTRUCTION:
PAN: 304 SST 2B EXTERIOR FINISH W/#8 MIRROR INTERIOR FINISH
DRIVE HOUSING & COVER: 304 SST
SUPPORT LINKAGE: ALUMINUM (POWDER PAINTED SILVER)
SUPPORT FRAME: 304 SST
COVERS: 304 SST 2B FINISH W/#8 MIRROR INTERIOR FINISH

PRODUCT PARAMETERS (WORSE CASE):
A. BULK DENSITY: 40 LBS/CF
B. FRICTION COEF:
C. PRODUCT FALL:
D. AIR TEMP--RH: AMBIENT
E. FLOW RATE: 34,286 LBS/HR
F. ANGLE OF REPOSE:
G. PRODUCT: SUGAR BASED & SUGAR FREE JELLO PUDDING POWDERS
H. PROD.TEMP: AMBIENT

CERTIFIED DRAWING
S. Sobers 1/9/03
PROJECT MANAGER

KRAFT FOODS INC. P.O. #DV2DD3007
TRIPLE/S DYNAMICS JOB #100536 (#17823)

TRIPLE/S DYNAMICS, INC.
3021 S. Haskell Ave.
Dallas, Tx 75223
Tele: 1-800-527-0164

FINAL ASSEMBLY,
PORTABLE CONVEYOR

D8621-003 D

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SHEET 1 OF 1

The Slipstick horizontal motion conveyor is not limited to the design shown. Custom configurations are available through Triple/S Dynamics.

BACK

BOTTOM PLACEMENT

NOTES

1.) PAN MATERIAL SHALL BE 304SS, 2BFINISH.

2.) ALL WELDS SHALL BE CONTINUOUS, SMOOTH, FREE OF PITS & CREVICES; PRODUCT CONTACT WELDS SHALL BE GROUND AND POLISHED. TO A 2B FINISH.

3.) FIELD WELDING SHALL BE PERFORMED BY A.W.S. CERTIFIED WELDERS FOR THE POSITION, MATERIAL AND TYPES OF WELDS TO BE PERFORMED.

4.) WELDING DESIGNATIONS ARE THOSE INDICATED IN THE EIGHTH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.

5.) ALL FASTENERS SHALL BE STAINLESS STEEL OR CHROME PLATED. ALL SELF-LOCKING NUTS SHALL BE STAINLESS STEEL ESNA NUTS.

6.) 3/8-16UNC GRADE 5 CHROME PLATED FASTENERS AT THE DRIVE ADAPTER SHALL BE TORQUED TO 30 FT-LBS. --NEVER REUSE THESE FASTENERS ONCE TORQUED--

7.) 1/2-13UNC STAINLESS STEEL FASTENERS AT THE PAN ADAPTER SHALL BE TORQUED TO 45 FT-LBS.

8.) 3/4-10UNC STAINLESS STEEL FASTENERS AT SUSPENSION ROD ENDS SHALL BE TORQUED TO 130 FT-LBS.

9.) TO PREVENT THREAD GALLING OF SS FASTENERS, USE EMHART BOSTIK'S NEVER-SEEZ (WHITE FOOD GRADE W/PTFE) OR EQUAL ON THREADS.

10.) SUSPENSION ROD ENDS ARE MARKED W/ AN "L" OR AN "R". INSTALL SUSPENSION RODS WITH THE ROD END MARKED WITH THE "L" AT THE BOTTOM AND THE ROD END MARKET WITH THE LETTER "R" AT THE TOP.

11.) INSTALL SUSPENSION RODS PLUMB TO WITHIN 0 DEG, 30 MINUTES OF TRUE VERTICAL (1/2 OF 1 DEGREE).

12.) ALL LOAD DATA SUPPLIED BY T/SD IS FOR THE CONVEYOR ONLY. NO ALLOWANCE IS GIVEN FOR PRODUCT CONVEYED.

13.) -CONVEYOR ALIGNMENT-
MANUFACTURING: USE 3/8"ø HOLES IN DRIVE ADAPTER TO MATCH DRILL DRIVE UNIT SIDE PLATES WITH 3/8"ø DRILL PER E.O. #8600-030.
INSTALLATION CONTRACTOR: USE (4) ROLL PINS IN THE DRIVE ADAPTER TO PROPERLY ALIGN DRIVE UNIT WITH CONVEYOR PRIOR TO TORQUING DRIVE ATTACHMENT FASTENERS.

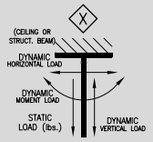
14.) MARK PARTS FOR EASY IDENTIFICATION: TAG SUSPENSION RODS WITH MATCHING LOAD LOCATION LETTERS.

15.) MAXIMUM SHIPPING LENGTH 6'-0".

LOAD SCHEDULE-PER INDIVIDUAL BRACKET				
ROD LOC.	STATIC LOAD (lbs.)	DYNAMIC VERTICAL LOAD (lbs.)	DYNAMIC MOMENT LOAD (in-lbs)	DYNAMIC HORIZONTAL LOAD (lbs.)
A	144	±88	±95	±4
B	154	±95	±95	±4

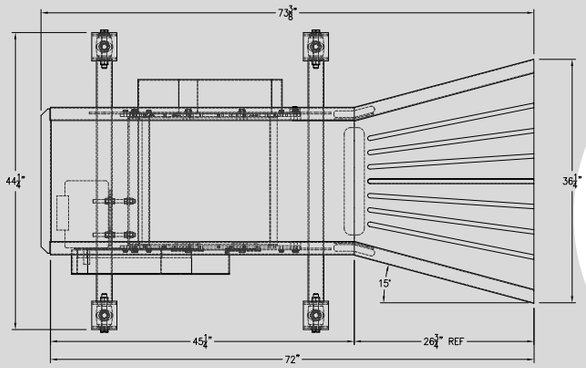
IMPORTANT! NOTE: REOD SUPPORT BEAM SECTION DEPTH TO BE DETERMINED BY CUSTOMER BASED ON FREE SPAN, APPLIED LOADS AND END CONNECTIONS. NATURAL FREQUENCY OF FRAMING UNDER APPLIED STATIC AND DYNAMIC LOADING MUST BE TAKEN INTO ACCOUNT IN DESIGN TO AVOID MAGNIFICATION DUE TO RESONANCE. RECOMMENDED DYNAMIC DEFLECTIONS LIMITED TO ±0.015" LONGITUDINALLY AND LATITUDINALLY AND 0.015" VERTICALLY. LOADING SHOWN IS PER INDIVIDUAL HANGER. LOADS ARE ESTIMATED AND INSTALLATION DEPENDENT.

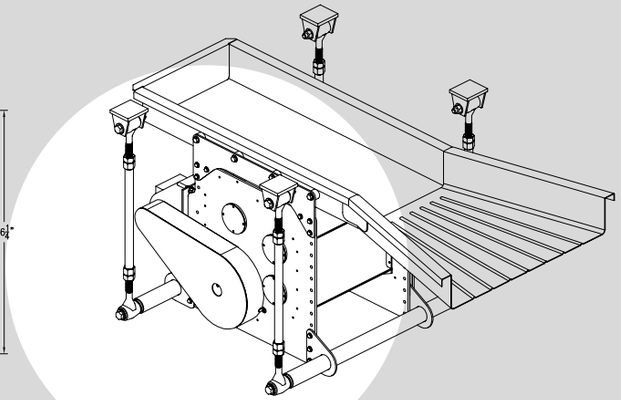
DYNAMIC LOADING FREQUENCIES:
276 CPM, PRIMARY
552 CPM, SECONDARY
828 CPM, TERTIARY

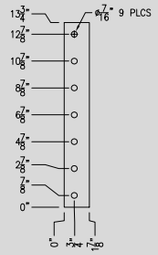


LOAD PER INDIVIDUAL BRACKET (ONE SIDE)

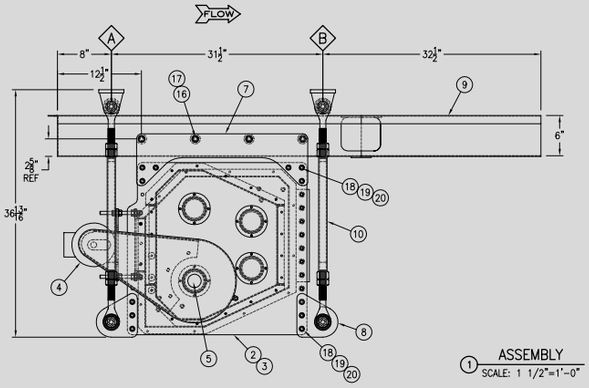
SYM	REVISION	DR	CK	DATE	MICROFILMED
A	REVISED (-6) CT WEIGHT, WAS 3/4" x 1 1/2" x 17 1/2"; REVISED (-8) WEW, -18 WAS QTY 20; -19 WAS QTY 29; -20 WAS QTY 58; -21 WAS QTY 8	R.D.B		10/6/03	
B	REVISED VIEWS TO SHOW SIDE SPLICE ON PAN AND NEW PAN END	R.D.B.		10/8/03	



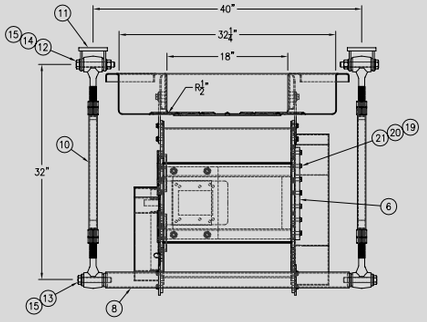




6 COUNTER WEIGHT
SCALE: 1/4"=1"



1 ASSEMBLY
SCALE: 1 1/2"=1'-0"



QTY	REF	PART/MATERIAL NO	DESCRIPTION	MATERIAL SPEC	
7	21	-	BOLT, HEX HD	ø3/8-16UNC x 2"LG (GR5)(CPL)	-
62	20	-	WASHER, FLAT	ø3/8" NOM	-
31	19	-	NUT, HEX	ø3/8-16UNC (GR5)(CPL)	-
24	18	-	BOLT, HEX HD	ø3/8-16UNC x 1 1/2"LG (GR5)(CPL)	-
8	17	-	WASHER, FLAT	ø1/2" NOM (SS)	-
8	16	-	BOLT, HEX HD	ø1/2"-13UNC x 1"LG (SS)	-
12	15	-	WASHER, FLAT	ø3/4" NOM (SS)	-
4	14	-	NUT, ESNA	ø3/4"-10UNC (SS)	-
4	13	-	BOLT, HEX HD	ø3/4"-10UNC x 4 1/2"LG (SS)	-
4	12	-	BOLT, HEX HD	ø3/4"-10UNC x 5 1/2"LG (SS)	-
4	11	D8600-2059-19-32	OVERHEAD SUSP BRKT	-	13.4
4	10	D8600-1931-3-32	SUSPENSION ROD	32" CL TO CL	58.0
1	9	D8618-994-1	PAN WELDMENT	304 SS 10GA x 37 1/4" x 160"	89.2
2	8	D8618-993-2	DRIVE SUPPORT	-	29.4
1	7	D8618-993-1	DRIVE ADAPTER	-	19.4
1	6	-	COUNTER WEIGHT	HRS A36 FB 3/4" x 1 7/8" x 13 3/4"	5.2
1	5	C11000-2611-3	SHEAVE PACKAGE	279 RPM	20.4
1	4	-	MOTOR	1HP, 1200RPM, 60Hz, 3Ph, 460 V	38.0
1	3	C11000-2294-08-1	WEIGHT STACK	-	138.7
1	2	D11000-2701-1	DIFF DRIVE ASSY	HDC-6C/1.7	241.8
X	1	-1	ASSEMBLY	WEIGHT: 654.5#	

Tolerances: Fractional ±1/64 in, Decimal ±0.03 in, Angular ±1 Degree, Unless otherwise specified.

CHECKED BY: Supervisor | PROJ ENG: | DRAWN BY: B. TURLEY | DATE: 9-19-03

FILE PATH: G:\DRAWINGS\QUALITY FAB\100597\BK8fa8618-988.DWG

FINAL ASSEMBLY
HDC-6/1.7 18"W x 6"D x 6'-0"LG
SLIPSTICK HDC-2003-37 TO 48

TRIPLE/S DYNAMICS, INC
1031 SOUTH HASKELL AV., DALLAS, TEXAS 75235-2925
TELE: 214-828-8600 FAX: 214-828-8638

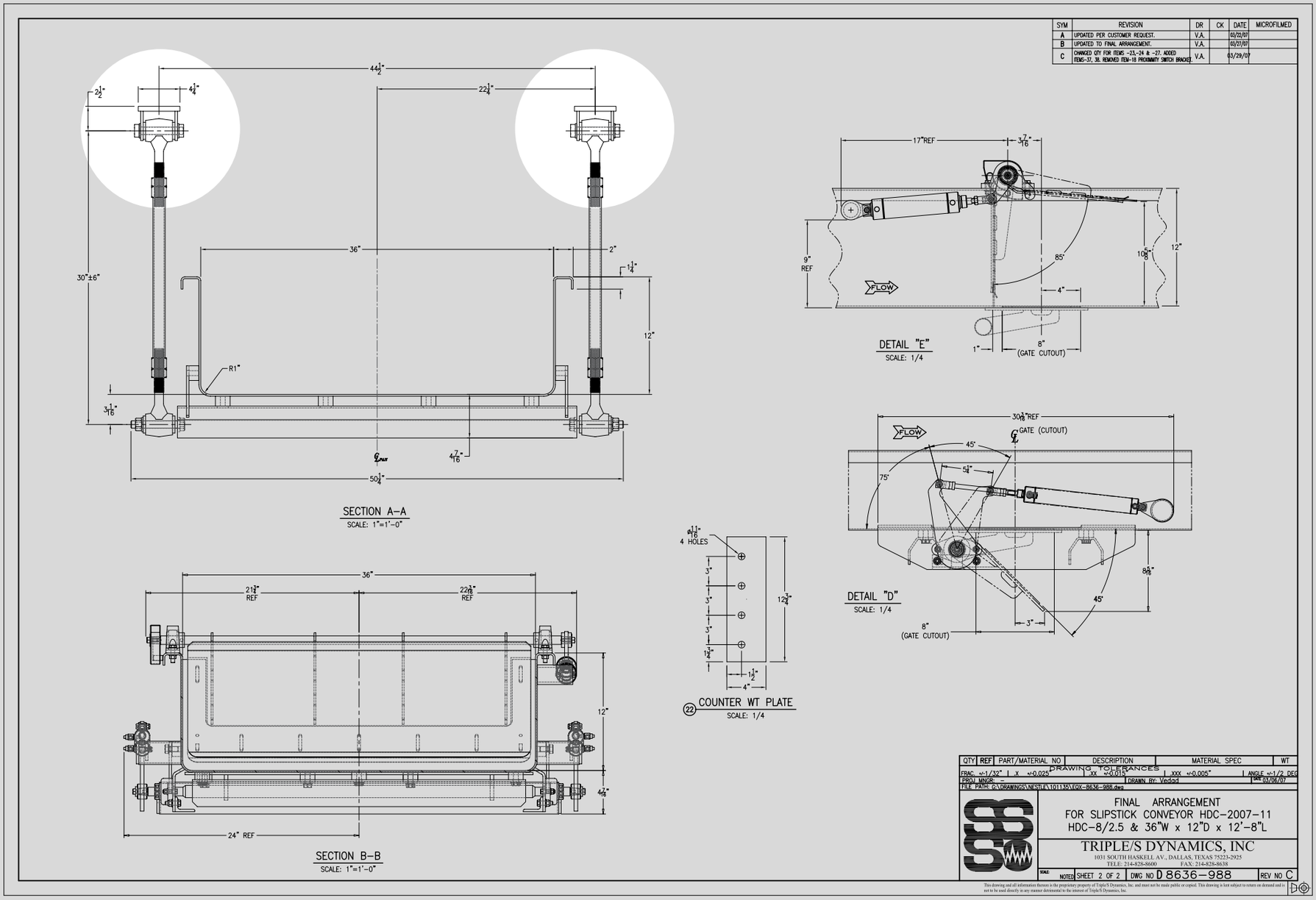
SCALE: Noted | SHEET 1 OF 1 | DWG NO D8618-988 | REV NO B

D8618-988 B

The Slipstick horizontal motion conveyor is not limited to the design shown. Custom configurations are available through Triple/S Dynamics.

BACK

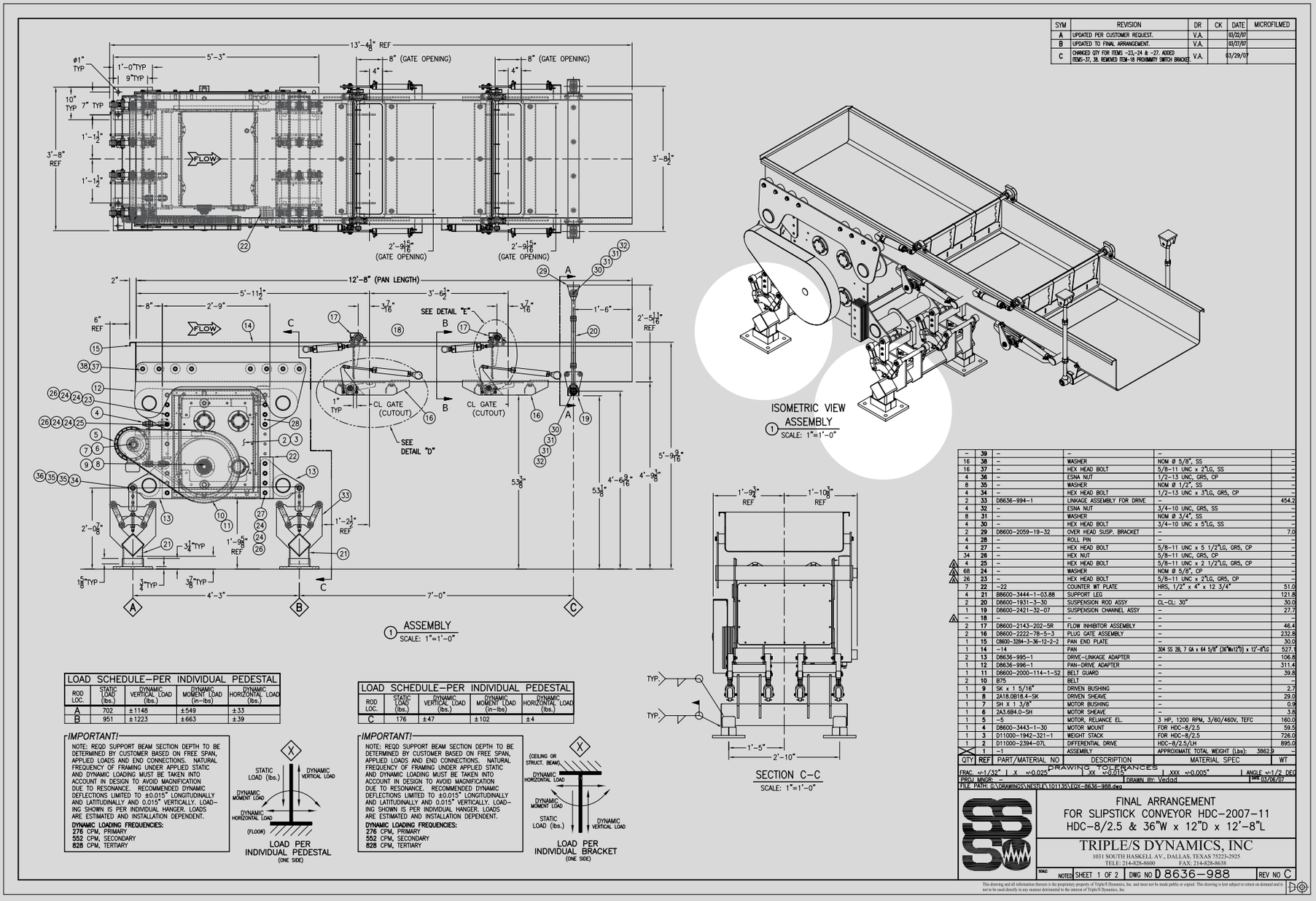
OVERHEAD SUSPENSION



The Slipstick horizontal motion conveyor is not limited to the design shown. Custom configurations are available through Triple/S Dynamics.

BACK

FLOOR SUPPORT



SYM	REVISION	DR	CK	DATE	MICROFILMED
A	UPDATED PER CUSTOMER REQUEST.	V.A.		03/22/07	
B	UPDATED TO FINAL ARRANGEMENT.	V.A.		03/27/07	
C	CHANGED QTY FOR ITEMS -23,-24 & -27. ADDED ITEMS-37, 38. REMOVED ITEM-18 PROXIMITY SWITCH BRACKET.	V.A.		03/29/07	

LOAD SCHEDULE—PER INDIVIDUAL PEDESTAL				
ROD LOC.	STATIC LOAD (lbs.)	DYNAMIC VERTICAL LOAD (lbs.)	DYNAMIC MOMENT LOAD (in-lbs)	DYNAMIC HORIZONTAL LOAD (lbs.)
A	702	±1148	±549	±33
B	951	±1223	±663	±39

IMPORTANT!

NOTE: REQD SUPPORT BEAM SECTION DEPTH TO BE DETERMINED BY CUSTOMER BASED ON FREE SPAN, APPLIED LOADS AND END CONNECTIONS. NATURAL FREQUENCY OF FRAMING UNDER APPLIED STATIC AND DYNAMIC LOADING MUST BE TAKEN INTO ACCOUNT IN DESIGN TO AVOID MAGNIFICATION DUE TO RESONANCE. RECOMMENDED DYNAMIC DEFLECTIONS LIMITED TO ±0.015" LONGITUDINALLY AND LATITUDINALLY AND 0.015" VERTICALLY. LOADING SHOWN IS PER INDIVIDUAL HANGER. LOADS ARE ESTIMATED AND INSTALLATION DEPENDENT.

DYNAMIC LOADING FREQUENCIES:
276 CPM, PRIMARY
552 CPM, SECONDARY
828 CPM, TERTIARY

LOAD SCHEDULE—PER INDIVIDUAL PEDESTAL				
ROD LOC.	STATIC LOAD (lbs.)	DYNAMIC VERTICAL LOAD (lbs.)	DYNAMIC MOMENT LOAD (in-lbs)	DYNAMIC HORIZONTAL LOAD (lbs.)
C	176	±47	±102	±4

IMPORTANT!

NOTE: REQD SUPPORT BEAM SECTION DEPTH TO BE DETERMINED BY CUSTOMER BASED ON FREE SPAN, APPLIED LOADS AND END CONNECTIONS. NATURAL FREQUENCY OF FRAMING UNDER APPLIED STATIC AND DYNAMIC LOADING MUST BE TAKEN INTO ACCOUNT IN DESIGN TO AVOID MAGNIFICATION DUE TO RESONANCE. RECOMMENDED DYNAMIC DEFLECTIONS LIMITED TO ±0.015" LONGITUDINALLY AND LATITUDINALLY AND 0.015" VERTICALLY. LOADING SHOWN IS PER INDIVIDUAL HANGER. LOADS ARE ESTIMATED AND INSTALLATION DEPENDENT.

DYNAMIC LOADING FREQUENCIES:
276 CPM, PRIMARY
552 CPM, SECONDARY
828 CPM, TERTIARY

QTY	REF	PART/MATERIAL NO	DESCRIPTION	MATERIAL SPEC	WT
–	39	–	–	–	–
16	38	–	WASHER	NOM Ø 5/8", SS	–
16	37	–	HEX HEAD BOLT	5/8-11 UNC x 2"LG, SS	–
4	36	–	ESNA NUT	1/2-13 UNC, GR5, CP	–
8	35	–	WASHER	NOM Ø 1/2", SS	–
4	34	–	HEX HEAD BOLT	1/2-13 UNC x 3"LG, GR5, CP	–
2	33	D8636-994-1	LINKAGE ASSEMBLY FOR DRIVE	–	454.2
4	32	–	ESNA NUT	3/4-10 UNC, GR5, SS	–
8	31	–	WASHER	NOM Ø 3/4", SS	–
4	30	–	HEX HEAD BOLT	3/4-10 UNC x 5"LG, SS	–
2	29	D8600-2059-19-32	OVER HEAD SUSP. BRACKET	–	7.0
4	28	–	ROLL PIN	–	–
4	27	–	HEX HEAD BOLT	5/8-11 UNC x 5 1/2"LG, GR5, CP	–
34	26	–	HEX NUT	5/8-11 UNC, GR5, CP	–
4	25	–	HEX HEAD BOLT	5/8-11 UNC x 2 1/2"LG, GR5, CP	–
68	24	–	WASHER	NOM Ø 5/8", CP	–
26	23	–	HEX HEAD BOLT	5/8-11 UNC x 2"LG, GR5, CP	–
1	22	-22	COUNTER WT PLATE	HRS, 1/2" x 4" x 12 3/4"	51.0
4	21	B8600-3444-1-03.88	SUPPORT LEG	–	121.8
2	20	D8600-1931-3-30	SUSPENSION ROD ASSY	CL-CL: 30"	30.0
1	19	D8600-2421-32-07	SUSPENSION CHANNEL ASSY	–	27.7
–	18	–	–	–	–
2	17	D8600-2143-202-5R	FLOW INHIBITOR ASSEMBLY	–	46.4
2	16	D8600-2222-78-5-3	PLUG GATE ASSEMBLY	–	232.8
1	15	C8600-3284-3-36-12-2-2	PAN END PLATE	–	30.0
1	14	-14	PAN	304 SS 2B, 7 GA x 64 5/8" (36"Wx12"D) x 12'-8"LG	527.1
2	13	D8636-995-1	DRIVE-LINKAGE ADAPTER	–	106.8
1	12	D8636-996-1	PAN-DRIVE ADAPTER	–	311.4
1	11	D8600-2000-114-1-S2	BELT GUARD	–	39.8
2	10	B75	BELT	–	–
1	9	SK x 1 5/16"	DRIVEN BUSHING	–	2.7
1	8	2A18.0B18.4-SK	DRIVEN SHEAVE	–	29.0
1	7	SH X 1 3/8"	MOTOR BUSHING	–	0.9
1	6	2A3.6B4.0-SH	MOTOR SHEAVE	–	3.8
1	5	-5	MOTOR, RELIANCE EL.	3 HP, 1200 RPM, 3/60/460V, TEFC	160.0
1	4	D8600-3443-1-30	MOTOR MOUNT	FOR HDC-8/2.5	59.5
1	3	D11000-1942-321-1	WEIGHT STACK	FOR HDC-8/2.5	726.0
1	2	D11000-2394-07L	DIFFERENTIAL DRIVE	HDC-8/2.5/LH	895.0
1	1	-1	ASSEMBLY	APPROXIMATE TOTAL WEIGHT (Lbs): 3862.9	–

DRAWING TOLERANCES: FRAC. +/-1/32" | X +/-0.025" | XX +/-0.015" | XXX +/-0.005" | ANGLE +/-1/2 DEG
PROJ MNGR: – | DRAWN BY: Vedad | DATE 03/08/07
FILE PATH: G:\DRAWINGS\NESTLE\101135\FOX-8636-988.dwg

SCALE: NOTED | SHEET 1 OF 2

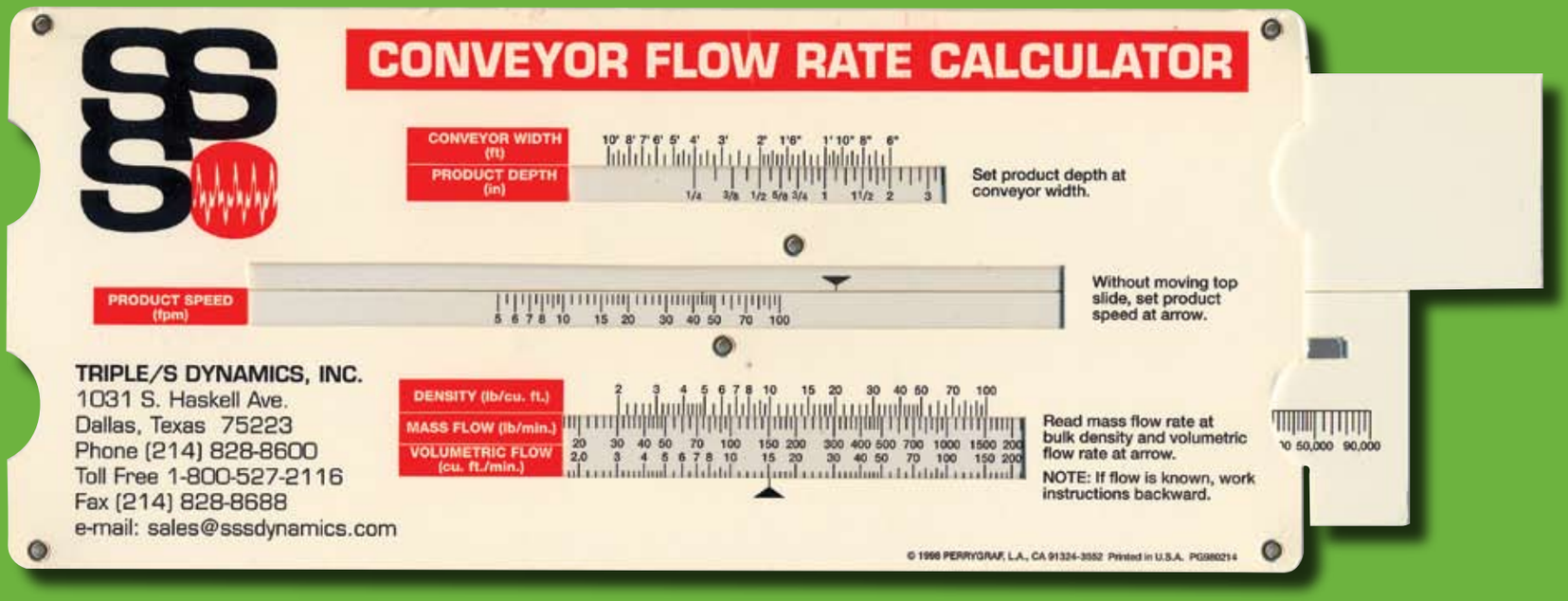
The Slipstick horizontal motion conveyor is not limited to the design shown. Custom configurations are available through Triple/S Dynamics.

BACK

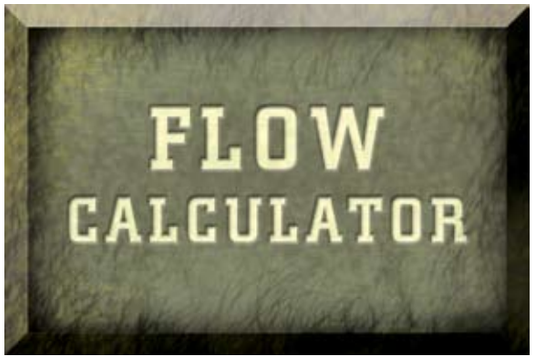
ABOUT FLOW CALCULATOR

The Conveyor Flow Calculator, developed by Triple/S Dynamics, is a handy slide calculator for determing conveyor sizes or for predicting conveyor loading based on changes in product flow rates.

The calculator is applicable to all types of vibrating conveyors, like the Slipstick horizontal motion conveyor and some belt conveyor designs.



To receive your free Flow Calculator from Triple/S Dynamics, click below.



BACK